Suppose that the file `input.txt` contains the two strings `F` and `F`. What does the following command do ? `% java Dragon < input.txt | java Dragon | java Dragon`

```
public class Dragon{
        public static void main(String[] args){
            String dragon = StdIn.readString();
            String nogard = StdIn.readString();
            StdOut.print(dragon + "L" + nogard);
            StdOut.print(" ");
            StdOut.print(dragon + "R" + nogard);
            StdOut.println();
        }
}
```

To understand what the command `% java Dragon < input.txt | java Dragon | java Dragon` does, let's break it down step by step. The command involves running a Java program called `Dragon` multiple times, using the output of one execution as the input to the next.

The `Dragon` Program

Here is the `Dragon` program:

```
public class Dragon {
    public static void main(String[] args) {
        String dragon = StdIn.readString();
        String nogard = StdIn.readString();
        StdOut.print(dragon + "L" + nogard);
        StdOut.print(" ");
        StdOut.print(dragon + "R" + nogard);
        StdOut.println();
    }
}
```

The Contents of `input.txt`

The file `input.txt` contains two strings, both named `F`. Let's assume the file content is:

```
F F
```

Execution Breakdown

1. **First Execution:** **`% java Dragon < input.txt`**
    - `dragon` is assigned the first `F`.
    - `nogard` is assigned the second `F`.

- The program prints: `FLF FRF`

2. **Second Execution: `| java Dragon`**
   - The output `FLF FRF` from the first execution is used as input for this execution.
   - Now, `dragon` is assigned `FLF`.
   - `nogard` is assigned `FRF`.
   - The program prints: `FLFLFRF FLFRFRF`
3. **Third Execution: `| java Dragon`**
   - The output `FLFLFRF FLFRFRF` from the second execution is used as input for this execution.
   - Now, `dragon` is assigned `FLFLFRF`.
   - `nogard` is assigned `FLFRFRF`.
   - The program prints: `FLFLFRFLFLFRF FLFLFRFLFRFRF`

Complete Command Execution

Here is the step-by-step output:

1. First execution with `input.txt`:
   FLF FRF
2. Second execution with `FLF FRF`:
   FLFLFRF FLFRFRF
3. Third execution with `FLFLFRF FLFRFRF`:
   FLFLFRFLFLFRF FLFLFRFLFRFRF

Final Output

The final output of the entire command sequence `% java Dragon < input.txt | java Dragon | java Dragon` is:

```
FLFLFRFLFLFRF FLFLFRFLFRFRF
```

This output is the result of concatenating the initial strings with `L` and `R` iteratively through the three stages of the program.